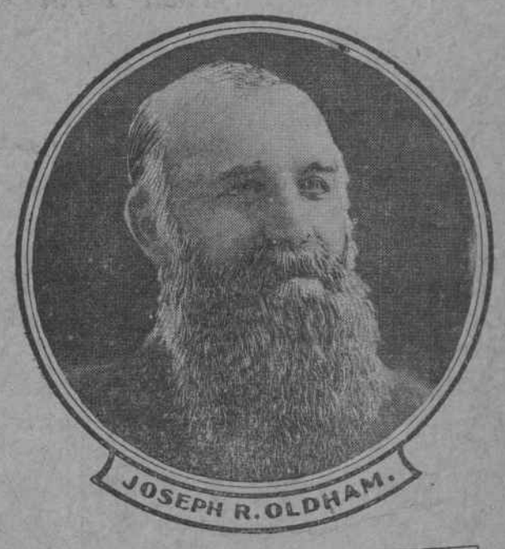
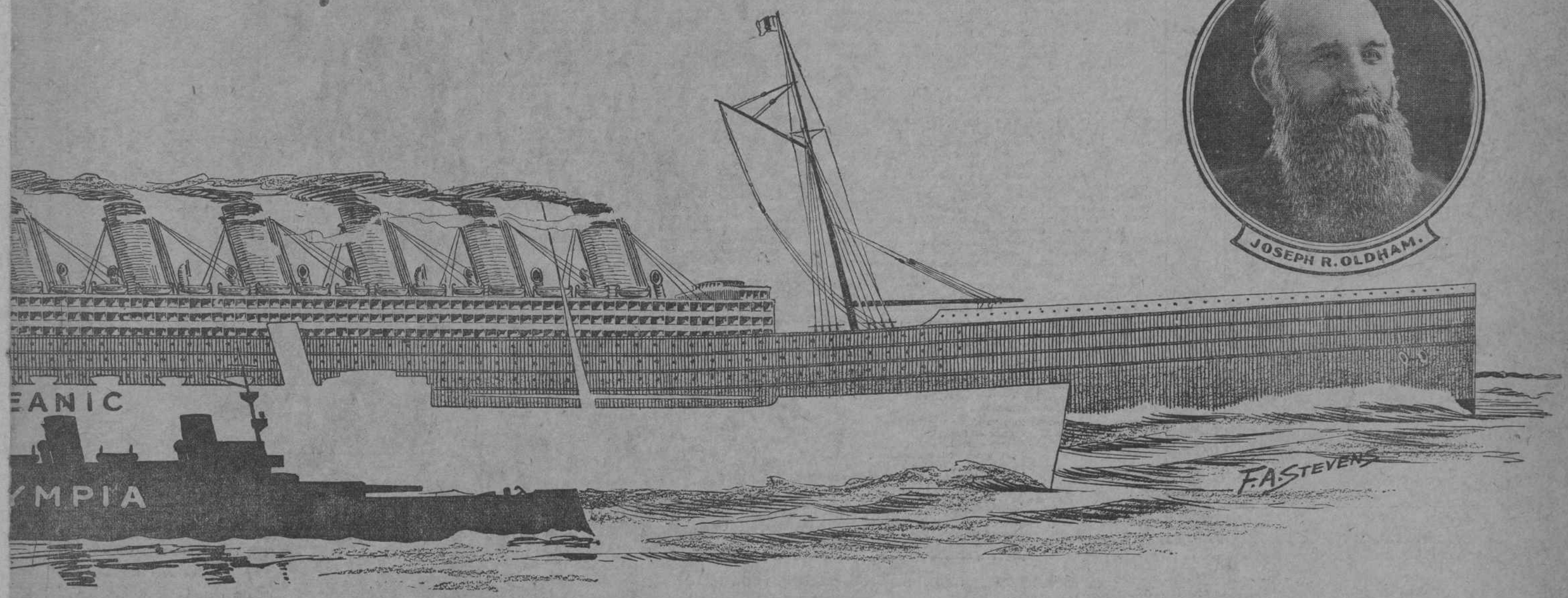
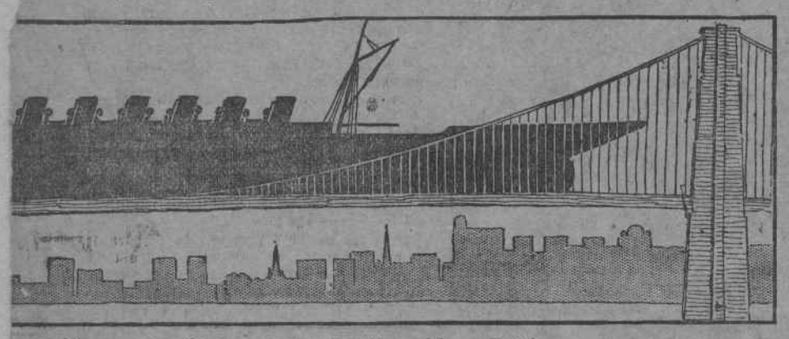
NS-ATLANTIC LINER

Remarkable Predictions by Mr. Pirrie, Who Built the "Oceanic" and Mr. Oldham, the Great Marine Expert.

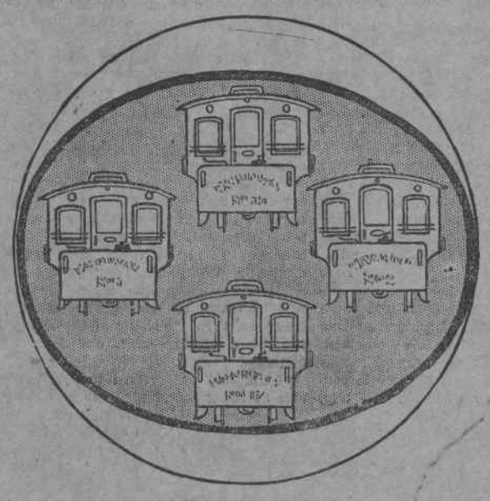




'4 Feet, Compared with the 1,200-foot Steamship of the Future.



om Tower to Tower of the Brooklyn Bridge.



Each of Her 12 Huge Smoke-stacks Would be Big Enough for Four Broadway Cable Cars to Pass Each Other In.

plates 100 feet in length and weighing twenty tons will be as easily made and handled as plates of 30 feet in length are to-day.

It is possible that rivetted butts may then be things of the past, and the plates will be placed on the hull direct from the mill without a second handling. I remember the time when boilermakers said they could not weld steel, but to-day a great deal of such welding is practiced, and boiler furnaces which used to be made in two or four pieces are now made in one piece. Small boats also are now made out of one steel plate.

The same ratio of advancement will undoubtedly be made in ships on the Great Lakes. From the cockle shells of a third of a century ago an advancement has been made almost equal to that on the seaboard. A third of a century hence will show an almost equal advancement. At this time the dimensions of the ordinary lake steamer, according to my best judgment, will be 1,000 feet long, 100 feet extreme width and with a depth of 60 feet. The tonnage would probably be about 49,000.

The vessel of the future ought to be unsinkable. Only money is needed to make a vessel so. I maintain that though professional salts, such as sailors and engineers, may risk their lives as the see fit, passengers, especially women and children, should be able to enter a vessel with the feeling that they are incurring absolutely no danger.

A vessel such as I have described would be unsinkable. There would be no danger from rocks or collisions and very little from fire. In the event of the destruction of a series of boilers in a collision there would be other boilers to take the ship to shore in safety. To any one who understands the existing conditions, the proportions of the ship would make it immune from danger so far as the elements are concerned.

Vessels ought be made to ride on top of the water instead of through it. The harbors the world around allow for twenty-three feet draught. The vessel I have described would ride at twenty feet. In fact, she should be built with that idea in mind. A vessel of this character would use about 1,200 tons of coal per day, or about 5,000 tons for the trip. She would carry no cargo whatever.

How the Great "Oceanic" Has Solved the Problem of the Bigger Ships of the Near Future.

BY THE RIGHT HONORABLE WILLIAM J. PIRRIE

BIG as the Oceanic is, she has not reached the limit in the size of ocean steamships.

I regard it as possible to build a ship half as large again, or approximately a thousand feet in length or more.

She could have a speed of thirty-five or forty knots an hour. That it would be profitable to run a ship at such a speed I should hardly venture to say.

Such a gigantic ship would have a beam width of 100 feet or over. She could carry four thousand people, as compared to the Oceanic's two thousand.

It would not be so difficult to build such a vessel as it was to construct the Oceanic. For in her case we had to depart entirely from previous methods of riveting and other metal work done by hand.

Hydraulic power was used instead. Now that a beginning has been made in the use of hydraulic power, it can be continued and increased practically without limit.

By this means we have made the Oceanic not only the largest ship afloat, but the strongest. So it need not be feared, as so often predicted, that above a certain size a ship would be structurally weak and break apart from her own weight.

The big ship of the future, to attain great speed, may be driven by three or four propellers. You already use three propellers on some of your war ships. Europe may have to learn something of America in this respect.

Big ships are now more easily managed than smaller ones. There is now no shouting of orders from the bridge. There are speaking tubes to the forecastle, engine room and other parts of the vessel, beside a set of electric signals. This feature of the big ships of the future may also be extended and improved upon.

But the real limit of a vessel's size is not to be determined by how big a ship can be constructed.

It depends now on the depth of water in the harbors, straightness of channels and size of docks of the ports she is to enter. New York is ahead of Liverpool in this respect. The Oceanic might have been built six years ago but for the impossibility of docking her in Liverpool. Even now the Oceanic may not be able to go into dock on her return trip there. She may have to anchor out in the channel.

It would require a forty or fifty foot depth of water in both New York and British ports to float a thousand foot ship. That is the only real obstacle in the way of beginning to build such a ship to-day.

THER ON MIND AND BODY

ourselves 'out of sorts' are the hot, humid, cloudy and perhaps rainy ones, some of us reserving the right to be hard to get along with when the wind is high. Such are the days when, all other things being equal, we should be most liable to have trouble with a fellowman, if the emotional state were the only factor. But we find that for some at least of these 'ugly' days, the numbers of misdemeanors alluded to are much below expectancy. Such is the case for the humid, the very windy, the cloudy and the rainy days. We should be at a loss to account for such a showing did not the conclusions from our study of the reserve energy come to our aid; for all the conditions noted this was found to be very much depleted. This fact is undoubtedly the cause of the deficiencies shown.

"A most ardent desire to hurt somebody is not very dangerous if there is nothing to back it up. A most uncomfortable atmosphere might hover about, and a record of profanity might show some interesting things; but inclination alone will at least get no one into the police court. Reserve energy, on the other hand, seems a most dangerous thing to have about, as far as personal conflicts are concerned.

In regard to brightness and clouds, Professor Dexter reaches different conclusions from those popularly held. "Italy," he says, "has always been 'Sunny Italy,' and England 'Gloomy Britain,' and the supposed effects of the two conditions made the excuse for many differing traits of character. It has been stated that the excessive number of suicides for England is due to its gloomy climate, but data show that the number per 100,000 for England is less than that of any other important European country or other civilized nation.

RSE CLEAR FOR COLUMBIA AND SHAMROCK.

ice. The list includes the new and fast a. Manning and Windom and the smaller hattan and Hudson. The yacht list will r the time being will have all the authority

d the famous shot in the fight at Cienhere. This lighthouse was filled with Spanish sharpshooters. A murderous fire was being directed upon the men in the cable-cutting boats when a shell from a 4-inch gun on the Windom crashed in through the walls of the lighthouse, and, exploding inside, completely demolished the structure.

The Manning was one of the smartest ships in Admiral Sampson's fleet, and in addition to participating in the blockade along the north Cuban coast, she was one of the convoy of ships which served to protect General Shafter's army when en route to Cuba. After the fall of Santiago the Manning was attached to Commander Todd's fleet, which operated on the south side of Cuba to the westward of Cape Cruz. The Hamilton saw plenty of hard service on the northern Cuba blockade. The Algonquin, Onondaga and Gresham are lake-built ships, which were cut in two in order to pass through the canal locks and which were brought to the Atlantic seaboard for war service.

Vessels of the revenue cutter service are specifically charged with the duty of enforcing the navigation laws of the country, and by virtue of the authority accorded to vessels of the revenue cutter service any merchant craft within the jurisdiction of the United States may be stopped and examined by officers of that service.

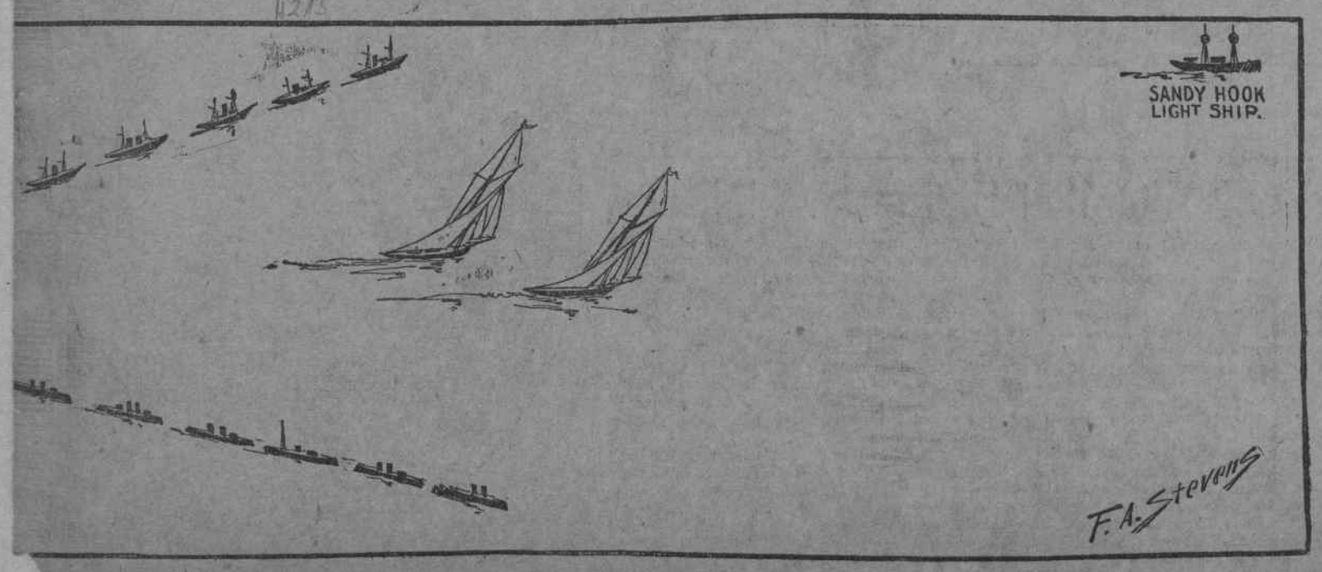
For the purpose of identification the law provides for a special flag for all revenue cutters. A heavy fine is the penalty for any merchant ship which has the temerity to hoist without authority a flag of the revenue cutter service. So long as a commissioned officer is on board the flag of the revenue cutter service may be displayed, and an order issued from a ship flying this flag is bound to be obeyed by all merchant ship captains.

The foregoing explains some of the technical features connected with the functions of the fleet which will guard the Shamrock and Columbia. No master of a yacht or merchant steamer who desires to continue at sea on United States vessels will dare to violate the instructions laid down for the races.

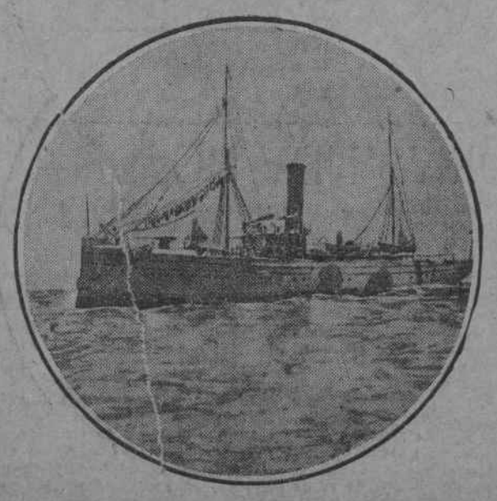
So much criticism has been indulged in heretofore regarding the handicapping to which the competing yachts were subjected that on the occasion of the coming contest an absolutely clear course may be expected.

Government supervision of races on the water has been in order for many years in foreign countries. A few years ago Congress enacted a law conferring upon the Secretary of the Treasury authority to supervise all boat races. Revenue cutters, under this law, patrolled the Hudson River off Poughkeepsie last June and rendered valuable service. This year, however, will be the first when revenue cutters have been assigned to duty in connection with the race for the America's Cup.

In addition to patrolling the courses the revenue cutters will keep close watch for any craft carrying more passengers than the law allows, and the knowledge that a close inspection on this score will be conducted will doubtless deter those who may be inclined to crowd, regardless of safety, every person on board that a ship can carry.



CHECK BY TWENTY-FIVE REVENUE CUTTERS AND TORPEDO BOATS.



The Revenue Cutter Manning, Which Will Act as Flag Ship.

Oom Paul is a Wily Old Warrior.

NO one ever denied that Oom Paul, President of the South African Republic, was an astute old statesman. Time and again he has beaten our British cousins in diplomacy and has proved his worth as a diplomatist.

At the time of the Jameson raid it caused Dr. Jameson and his associates considerable surprise that their plans were known to the Boers almost as soon as they were conceived. The British were met, fought and defeated by an ambushed body of men almost at the beginning of their attack, and it was believed at the time that one of their number had turned traitor and given the plans to the Boers, but now the secret is known.

The old warrior enlisted the services of the barmaids of Johannesburg in the political secret service. Through them he learned that new men were being enlisted in the Cape police and that new guns were being shipped, week after week, from England.

The Englishmen babbled all this over their cups, and the barmaids winning smiles and bright eyes never gave them the suspicion that they were telling secrets of vital importance.